

U.S. PATENT APPLN S.N. 10/529,847
DECLARATION UNDER 37 C.F.R. § 1.132

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/529,847 Confirmation No. 1538
Applicant : Jun SAKAMOTO et al.
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Cust. No. : 20374

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Koichi DAN, declare and state THAT:

1. I have a Master's degree in Kyoto University,
Graduate School of Engineering Department of Polymer Chemistry.
2. Since 1999, I have been employed by Toray
Industries, Inc., and from 1999 to 2005 have been a researcher in
the Global Environment Research Laboratories of Toray Industries,

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Inc.

3. I am now a Senior Researcher in the Films and Film Products Research Laboratories of Toray Industries, Inc. since 2005 and have been engaged in research and development of polymer materials from 1999 to present.

4. I am aware that the claims of U.S. Patent Application Serial No. 10/529,847 were rejected as being anticipated by Aoyama et al., U.S. Patent No. 6,365,659 ("Aoyama"), in Office Actions dated June 4, 2007, September 19, 2007, April 8, 2008, August 11, 2008, and March 30, 2009, in the application.

5. To demonstrate that the polyester resin compositions of Aoyama contain more than 100 particles per 0.02 mg of the compositions of titanium-containing particles having an equivalent circular diameter of 1 μ m or more, the following tests were carried out under my direction and supervision.

EXAMPLES 1, 4-11, 13 AND 14 OF AOYAMA

Each of the polyester resin compositions of Examples 1, 4-11, 13 and 14 of Aoyama was prepared following the procedures

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described in these examples in Aoyama.

The number density of titanium-containing particles, i.e., the number of titanium-containing particles per 0.02 mg of each composition, having an equivalent circular diameter of 1 μ m or more was measured according to the measuring method used in the examples of U.S. Patent Application Serial No. 10/529,847 as described on page 62, line 11, to page 64, line 16, of the application.

The results of the measurements are described in Table 1, "Test Results of Examples of US6365659", attached hereto.

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that further these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

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Signed this 17 day of July, 2009.

Signed: Koichi Dan

Name: Koichi DAN

Table 1 Test Results of Examples of US6365659

	Particles (X)			Compound oxide (A)		Phosphorus compound (B)		Alkaline earth metal or cobalt compound (C)		Polyester resin properties	Film properties		Particles (X) not added
	Compound	Average particle size (μm)	Content (wt%)	Ti/Si (molar ratio)	Content as titanium atoms (ppm)	Content as phosphorus atoms (ppm)	Ti/P (molar ratio)	Metal (content as metal atoms) (ppm)	Ti/metal (molar ratio)	Number of particles(*1) (pcs/0.02 mg)	Number of dropouts (accepted or rejected/quantity)	Number of particles(*2) (pcs/0.02 mg)	Number of dropouts (accepted or rejected/quantity)
Example 1	Titanium dioxide	0.56	0.5	90/10	15	30	0.32	Cobalt (47)	0.39	>300	Rejected/60	>300	Rejected/35
Example 4	Titanium dioxide	0.56	0.5	95/5	15	1.5	6.5	Cobalt (47)	0.39	>300	Rejected/63	>300	Rejected/43
Example 5	Titanium dioxide	0.56	0.5	80/20	20	32	0.4	Cobalt (120)	0.2	>300	Rejected/62	>300	Rejected/40
Example 6	Titanium dioxide	0.56	2.5	90/10	40	30	0.86	Cobalt (47)	1	>300	Rejected/82	>300	Rejected/47
Example 7	Titanium dioxide	0.56	0.01	90/10	40	30	0.86	Cobalt (47)	1	>300	Rejected/83	>300	Rejected/47
Example 8	Silicon oxide	0.32	1	90/10	40	30	0.86	Cobalt (47)	1	>300	Rejected/51	>300	Rejected/47
Example 9	Silicon oxide	0.25	0.5	90/10	40	30	0.86	Cobalt (47)	1	>300	Rejected/50	>300	Rejected/47
Example 10	Silicon oxide	2	0.5	90/10	40	30	0.86	Cobalt (47)	1	>300	Rejected/66	>300	Rejected/47
Example 11	Titanium dioxide	0.56	0.5	90/10	15	30	0.32	Calcium (40)	0.3	>300	Rejected/60	>300	Rejected/37
Example 13	Titanium dioxide	0.56	0.5	85/15	20	0.8	16	Cobalt (40)	0.46	>300	Rejected/65	>300	Rejected/35
Example 14	Titanium dioxide	0.56	0.5	90/10	17	10	0.22	Cobalt (180)	0.12	>300	Rejected/61	>300	Rejected/42

(*1) particles having an equivalent circular diameter of $1\ \mu\text{m}$ or more(*2) particles having an equivalent circular diameter of $1\ \mu\text{m}$ or more